



**MAINE POWER  
RELIABILITY PROGRAM**  
A CENTRAL MAINE POWER COMPANY PROGRAM

**TOWN OF BURNHAM, MAINE  
LAND USE ORDINANCE PERMIT APPLICATION**

**Section 3023/67 Transmission Line Construction**

***Prepared for:***

Central Maine Power Company  
83 Edison Drive  
Augusta, Maine 04336

***Prepared by:***



TRC Engineers, LLC  
249 Western Avenue  
Augusta, Maine 04330

January 2009

Tax Map 4 Lot 15

BURNHAM LAND USE PERMIT APPLICATION  
MEETING SCHEDULE: SECOND TUESDAY OF EACH MONTH

**Applications received at the Town Office, together with the required fee, within 5 business days of a regularly scheduled Planning Board meeting, will be considered at that meeting.**

Application # \_\_\_\_\_

Date: January 7, 2009

**The undersigned applies for a permit for the use proposed below and certifies that all information and attachments to this application are true and correct.**

**Permit applications need to be filled out completely with appropriate attachments**

A. Information about applicant

- 1. Name Central Maine Power Company
- 2. Address 83 Edison Drive  
Augusta, Maine, 04336
- 3. If applicant does not own the property,

CMP owns the existing transmission line corridor in fee, as identified below. CMP is negotiating an option on a 50-foot expansion of that corridor from the abutter, Richard Lepoer.

**If the applicant does not own the property, the planning board will require written permission from the owner before a permit will be issued.**

B. Information about property, Map # 4 Lot # 15 Book # \_\_\_\_\_ Page # \_\_\_\_\_

- 1. Address or location of property Existing right-of-way for section 67 transmission line corridor, located at the Burnham-Clinton town line(s) south of the Johnson Flat Road
- 2. Copy of Deed, Lease, Sales proposal/contract, or other written evidences of right title or interest to be submitted with application (see Exhibit 3).

CMP is making every effort to acquire right, title, or interest in land abutting the existing corridor through negotiation at fair market value, either through fee acquisition or easement. CMP has negotiated options to buy fee interests or easements for the majority of the properties, as shown on the Deed Reference table in this application and is continuing to negotiate with the remaining landowners along the corridor. In instances where CMP and a landowner are not able to agree on the value of the property, and the Public Utility Commission ("PUC") has issued a Certificate of Public Convenience and Necessity for the project, CMP will be required to apply to the PUC pursuant to 35-A M.R.S.A. § 3136 to receive approval to take the land by eminent domain and compensate the landowner at fair market value. CMP's statutory eminent domain authority constitutes adequate right, title, or interest to construct the property.

- 3. Existing use of property Transmission Line right of way Seasonal Yes or No

- 4. Property is zoned as Not zoned on Land Use Map
- 5. Is property part of subdivision? Yes No
- 6. Size of property, Lot width = 250' Lot depth (length) = approximately 700' Lot area = 4 acres (includes acquisition of additional 50' of width)
- 7. Type of existing sewage disposal, if any not applicable

**If this is a seasonal conversion to a year around residence, documentation must be provided concerning septic system design and appropriate plumbing permits.**

- 8. Does property include land area within 250 feet of the normal high water mark of any pond, river, or other water body subjected to Shoreland Zoning controls?

Yes No

- 9. Is Property located in a Flood Hazard Area as determined by FEMA (Federal Emergency Management Agency)? The Flood Hazard area around the perimeter of Unity Pond includes all Areas below Elevation 180 (reference Flood Maps for Burnham). All development as defined in the Burnham General Provisions Ordinance on property located in a Flood Hazard Area requires review and permitting under Burnham's Floodplain Management Ordinance.

Yes No

- 10. Have you or any previous owners applied for a land use permit in the past?

Yes If yes, when?

No

**C. Information about proposed use(s) and changes of property (All appropriate information and maps must be provided to the planning board)**

- 1. Current use and proposed changes

The right-of-way in Burnham (2/10 mile) is currently used for a 115kV transmission line for bulk power delivery between the Detroit and Windsor substations. As part of the Maine Power Reliability Program (MPRP), the corridor is to be widened by 50' and a new 345 kV transmission line will be built on the west side of the existing line. In Burnham, this will require the addition of a single 2-pole, H-frame structure that will be approximately 79' tall. The upgrade in Burnham is part of a larger effort that involves the installation of a new circuit from Orrington to Windsor, necessary to improve the reliability, safety, and security of the bulk power transmission system in Maine under the MPRP while meeting the increasing demands for electrical power.

a. Residence Not applicable Number of Units Not applicable

b. Accessory building Not applicable

c. Pier or dock, Temporary Not applicable Permanent Not applicable

d. Clearing for approved construction

Approximately one acre of the corridor (including the newly-acquired 50' of width) will be cleared of trees capable of growing into the transmission line security zone, which could adversely impact the safety and reliability of the line. All other vegetation will remain in place.

e. Private sewage disposal system Not applicable

f. Filling or other earth-moving activity of:

Less than 10 cubic yards

More than 10 cubic yards

g. Proposed date of construction

Fall 2009, although a construction schedule for the entire MPRP is still to be finalized

h. Other (explain)

2. Percentage of lot to be occupied by structures less than .01%

3. Structures, exterior dimensions (**height, length and width**)

a. Residence Not applicable

b. Garage Not applicable

c. Other (utility pole) One approximately 79' 2-pole "H" frame structure

4. Please **describe and illustrate** the following information about your lot and the proposed use of the lot on a **scale drawing or by a site plan** prepared by a surveyor, architect, or engineer (**use of graph paper is recommended**):

a. Lot dimensions

b. Names of abutting property owners, name and location of abutting rights of way, public and private, and abutting water body.

c. Exact location of existing and proposed buildings and distance of each from nearest lot line and normal high water mark.

d. Location of sewage disposal system and water supply.

e. Areas to be cleared, if applicable.

f. Areas of cut, fill, grading, or other earth moving activity, if applicable.

5. Attachments where appropriate  
a. Attach a copy of Plumbing permit.

Not applicable

- b. Attach a copy of official decisions (or note the fact that application(s) are still pending) of other federal, state or local agencies regarding the use of this Property (e.g., Site Location Permit, Permit by Rule, Minimum Lot Size Waiver, Subdivision approval, Great Ponds Permit, etc.)

An application for a Certificate of Public Convenience and Necessity is pending with the Maine PUC. CMP will also be applying for approvals from the Maine DEP under the Site Location of Development law and Natural Resources Protection Act.

- c. On a separate sheet, attach any supplemental information of explain any points you feel need clarification.

- d. Wireless Tower Permit

Not applicable

To the best of my knowledge, all information submitted on this application, is true and correct. All proposed uses will be in conformance with the application and the Burnham Code of Land Use Ordinances and the NRPA (Natural Resources Protection Act) administered through Maine DEP.

**Note: All construction activities in a great pond watershed must include appropriate sediment and erosion control measures.**

Signature 

Date 1/7/09

**FEE FOR ORDINANCE COPIES AND PERMITS**

- A. Shoreland and General Provisions Ordinance (cost includes both) ..... 5.00
- B. Building permits:
  - 1. Residential and/or land use..... 10.00
  - 2. Commercial..... 15.00
  - 3. Subdivisions (per lot) ..... 25.00
  - 4. After the Fact Permit .....500.00
  - 5. Wireless Tower Permit ..... 100.00
  - 6. Special Meeting Fee of \$10 per planning board member in attendance

There will be a waiver of the building permit FEE if construction commences within one year from date of a catastrophe (fire, flood etc.)

**NON-REFUNDABLE FEES ARE PAYABLE TO THE TOWN OF BURNHAM**

(For official use only)

Date Received \_\_\_\_\_ Fee Paid \_\_\_\_\_

Date of Action on Application \_\_\_\_\_

\_\_\_\_\_

CEO RECOMMENDATION

Date of site visit \_\_\_\_\_

Approve \_\_\_\_\_ Approve with conditions below: \_\_\_\_\_ Deny: \_\_\_\_\_

Conditions for approval or reasons for denial: \_\_\_\_\_

\_\_\_\_\_

## **Maine Power Reliability Program Description**

The Maine Power Reliability Program (MPRP) is a project by Central Maine Power Company (“CMP”) to upgrade Maine’s bulk power system. The vast majority of Maine’s bulk power transmission system was placed into service in the early 1970s and is now reaching the limits of its ability to meet the growing electrical demand of Maine customers. Since the last major transmission infrastructure was completed more than 30 years ago, the patterns of both available generation and customer load have shifted significantly. For example, population has become more concentrated in the southern part of the state, while the generation needed to serve that load is now more distant and dispersed. When these pattern changes are combined with the increasing peak demand, the current transmission infrastructure in Maine will, in very few years, become inadequate. In addition, the reliability and security standards mandated by law and administered by the North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council, Inc. (NPCC) and ISO New England (ISO-NE) have changed significantly in recent years. Central Maine Power Company must upgrade its bulk power system with this proposed project in order to meet the mandatory standards and to provide reliable electric service to Maine customers into the future.

CMP's 345 kV transmission system was built and put into service in 1971. Since then power consumption has more than doubled. In recent years, both CMP and ISO-NE have identified certain reliability issues with the 345 kV system that need to be assessed and addressed.

In January of 2007, the MPRP began a comprehensive needs assessment of CMP's bulk power transmission system. The study included a 10-year forecast to evaluate the system in Maine, including a review of system reliability and performance under various system conditions and operating scenarios, as well as a needs assessment to ensure a robust and reliable transmission system in the most cost-effective manner possible. The study identified a number of significant reliability issues with Maine’s bulk transmission system, including insufficient 345 kV transmission capacity, insufficient 115/345 kV transformation capacity, and insufficient transmission support and/or infrastructure in all regions served by CMP.

After completing the needs assessment, the MPRP team went to work to study possible solutions. This included both transmission and non-transmission alternatives, before designating its preferred solution.

CMP ultimately selected a transmission solution based on a number of factors, including electrical performance, cost effectiveness, impacts to landowners, and Maine’s environment and robustness under various forecasts of future conditions. The main component of this set of transmission projects includes a 345 kV transmission line from Eliot to Orrington. The line will follow existing transmission corridors for more than 95% of its route. The proposed project also includes investments in new substations, upgrades to existing substations, and improvements to the 115 kV electric system. The proposed transmission solution passes through 80 Maine towns, and will require approvals from the Maine Public Utilities Commission, the Maine Department of Environmental Protection, and numerous municipalities.

**Project Description in Town of Burnham**

The project in Burnham involves installation of approximately 0.15 miles of new 345 kV transmission line, including the installation of one 2-pole H-frame structure approximately seventy-nine feet in height, to be located along the west side of the existing 115 kV line (Section 67). The new line (section 3023) is part of a larger project within the MPRP that involves the installation of approximately 59 miles of this line from Orrington to Windsor. In order to provide the necessary setback for the new line in Burnham, CMP has an option to acquire an additional fifty feet of property from the abutting landowner along the west side of the corridor.

## Code of Ordinance Performance Standards

**A. Minimum Lot Standards.**

Not applicable.

**B. Principal and Accessory Structures**

Not applicable.

**C. Piers, Docks, Wharfs, Bridges, etc.**

Not applicable.

**D. Campgrounds**

Not applicable.

**E. Individual Private Campsites**

Not applicable.

**F. Commercial and Industrial Uses**

Not applicable.

**G. Parking Areas**

There will be no parking areas associated with the project.

**H. Roads and Driveways**

There will be no new permanent roads or driveways associated with the project, other than CMP-maintained access points and ways suitable for routine and urgent maintenance by its own vehicles. Temporary light duty access paths will be built for use during the construction phase. This will be an ongoing process as access will be established to areas undergoing immediate construction. As construction progresses, new access paths will be established and obsolete ones will be closed. All access paths are temporary and will be removed once construction is complete.

Measures will be taken to avoid and minimize impacts to streams and wetlands through the use of crane mats, temporary bridges, geo-textile fabrics, and culverts, when necessary. Appropriate erosion controls will be installed wherever necessary. If necessary, mats will be placed parallel to the upland edge as abutments to further protect bank stability and establish stability. No extensive grubbing (grading to remove root systems) within wetland crossing areas will be done prior to mat placement. However, some minor grading may be required to ensure mat stability and construction access safety. All such grading will be performed on a limited basis and only with prior approval by the Applicants' environmental representatives. Streams that are too wide to cross with crane mats or temporary bridges will be avoided.

**I. Signs**

There will be no signage associated with the project.

**J. Storm Water Runoff**

With the exception of the immediate area occupied by the support structures and along access roads, there is no increase in impervious surface area associated with the transmission line. Therefore there will be no significant storm water run-off generated from the project.

**K. Septic Waste Disposal**

There will be no wastewater generated from the project site.

**L. Essential Services**

The project is being entirely constructed within the existing transmission line corridor. Structures have been sited to the greatest extent practicable to avoid or minimize adverse impacts on surrounding uses and resources.

**M. Mineral Exploration and Extraction**

Not applicable.

**N. Agriculture**

Not applicable.

**O. Timber harvesting.**

Not applicable.

**P. Clearing of Vegetation for Development**

Some clearing of vegetation will be required within the service corridor to accommodate the project and ensure that the project meets federal reliability and safety standards. The amount of clearing will be limited to that which is necessary for development of the project, and is generally limited to removal of species that are capable of growing tall enough to interfere with the transmission lines (so-called “capable species”). Non-capable species are allowed to remain to ensure that the corridor is vegetated, which prevents erosion and provides wildlife habitat. No grubbing (i.e., stump removal) will take place (see Exhibit 1).

**Q. Erosion and Sedimentation Control**

With the exception of the immediate area around the base of the support structures there is no increase in impervious surface area associated with the transmission line. The amount of ground disturbance associated with this project will be limited to the immediate vicinity of the pole placements and the impacts associated with access roads. CMP has developed a standard manual, “Environmental Guidelines for Construction and Maintenance Activities on Transmission line and Substation Projects” (2007), which it uses as a routine part of all transmission and substation projects (see enclosed). This manual contains erosion and sedimentation control requirements, standards, and methods that will be used to protect soil and water resources during construction of the various MPRP components. The manual was developed in consultation with the Maine Department of Environmental Protection (DEP) and is largely based on DEP’s *Maine Erosion and Sediment Control BMPs*, dated March 2003, and DEP’s Chapter 500, and contains specific Best Management Practices appropriate for electric transmission line and substation construction. These guidelines will be followed in the construction of transmission lines.

**R. Soils**

Based on the applicants’ analysis of the Soil Survey Geographic Database compiled by the United States Department of Agriculture – Natural Resources Conservation Service, soils within the transmission line corridor will accommodate the proposed MPRP construction activities. Soil constraints within the transmission line corridor will be managed and mitigated through implementation of erosion and sediment control measures, proper site and project design, and special construction procedures. If concrete foundations for specific poles should need to be constructed, soil borings will be conducted and the foundations will be designed in accordance with soil characteristics.

**S. Water Quality**

To minimize spill potential during construction, no fueling or maintenance of vehicles will be performed within 100 feet of wetlands, streams or other sensitive natural resources. After construction the electrical transmission line corridor is maintained to encourage the growth of scrub-shrub vegetation. Trees within the corridor that are capable of growing up into the conductors (“capable species”) must be removed for safety and reliability reasons. CMP uses a selective herbicide program to treat an area once every four years to maintain an early successional stage of growth. Herbicide is selectively applied (using a backpack applicator) to capable species to prevent growth (or re-growth of a cut plant) of individual plants. No broadcast application is used, and CMP does not use herbicides within 25 feet of any waterbody or wetland with standing water. Crew forepersons are certified by the Maine Pesticide Control Board. All herbicides are EPA registered. The selective use of herbicides within the transmission line corridor does not impose a threat to groundwater quality.

**T. Archaeological and Historic Resources**

Following consultation with the Maine Historic Preservation Commission (MHPC) CMP has conducted extensive pre-historic archaeological, historic archaeological, and historic architectural surveys along the project corridor. Survey reports have been submitted to the MHPC (“letters of no effect” from the MHPC will be made available).

## Additional Standards

### The proposed use will:

#### 1. Maintain safe and healthful conditions.

The proposed project will maintain the same safe and healthful conditions which are already present in the transmission line corridor. The transmission line corridor and the structures within it are maintained to established industry standards so as to ensure the safety of utility workers and the general public. Maintaining sufficient clearances around the conductors is paramount to the safe operation of the line. These clearances are achieved through appropriate siting of the structures themselves and through vegetation maintenance practices as described above. A health concern that is sometimes expressed revolves around the electric and magnetic fields produced by transmission lines. These fields are produced by any electric equipment or anything that carries electric current. The World Health Organization and numerous other scientific agencies around the world have studied the issue extensively. These studies have been unable to establish that electric and magnetic fields produced by transmission lines such as those being proposed as part of the MPRP cause any adverse health effects. There is no scientific basis to project any adverse health effects as a result of the electric and magnetic fields produced by transmission lines associated with this project.

#### 2. Not result in water pollution, erosion, or sedimentation to surface waters.

The MPRP will not result in water pollution, erosion, or sedimentation to surface waters.

#### 3. Adequately provide for the disposal of all wastewater.

There will be no wastewater disposal required for this project.

#### 4. Not have an adverse impact on spawning grounds, fish, aquatic life, bird, or other wildlife habitat.

Impacts to wildlife, scenery, and unique critical areas are largely avoided through the use of the existing service corridor, which has been in place for several decades. In general, given the existing landscape characteristics of the site, construction and maintenance of the project is not expected to create conditions that are not already common to the project area. It is fully anticipated that local wildlife populations will adapt and respond to any additional alterations much as they already do to ongoing land uses within the vicinity of the proposed project. Therefore, impacts to wildlife are expected to be minimal to non-existent. Identified significant wildlife habitats and natural areas, such as vernal pools and rare plant locations, will be avoided and minimized to the extent practicable through careful siting and placement of poles. Once installed the transmission line structures, due to the minimal amount of ground surface area they occupy, will have no significant impact on these critical natural areas. Significant wildlife habitats and natural areas will be avoided to the greatest extent practicable during construction including measures that are taken to ensure any impacts will be minimal and temporary.

**5. Conserve shore cover and visual, as well as actual, points of access to inland waters.**

This standard does not apply for the portion of the corridor in Burnham.

**6. Protect archaeological and historic resources as designated in the comprehensive plan.**

The project will protect archaeological and historic resources as designated in the comprehensive plan.

**7. Will avoid problems associated with flood plain development and use.**

This standard does not apply for the portion of the corridor in Burnham.

**EXHIBIT 1**  
**Transmission Line Corridor with USGS, Sensitive Habitat, and  
Hydrographic Maps**

**EXHIBIT 2**  
**Cross Section**



**EXHIBIT 3**  
**List of Abutters**

**ABUTTING LANDOWNERS**

<b>Property Owner</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>ZIP</b>	<b>Map/Lot</b>
Richard Lepoer	134 Shaw St.	Lowell	MA	01851	4/ 14 & 16

**CMP DEED REFERENCE LIST (Section 67)**

<b>Previous Owner</b>	<b>Current Owner</b>	<b>Book/Page</b>	<b>Year Acquired</b>	<b>Property Type</b>
Half-way Farm & Timberland	CMP	548/324 - CC	Summer 1940	Fee
	Richard Lepoer			Negotiating Option for an additional 50'

<b>Map Number</b>	<b>Lot Number</b>
4	15